

# Isles of Scilly Area of Outstanding Natural Beauty Management Plan 2021-2025



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Area of Outstanding Natural Beauty



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# Ministerial Forward

I am fortunate that England's Areas of Outstanding Natural Beauty are part of my Ministerial responsibilities. Whether it be rolling hills, sweeping coastline or a tranquil village, spending time in an AONB can stir the heart and lift the spirit.

This is a pivotal moment for all AONBs.

The Government has set its ambition in the 25 Year Environment Plan which states clearly the importance of natural beauty as part of our green future, while AONBs retain the highest status of protection for landscape through national planning policy.

Leaving the EU brings with it an opportunity to develop a better system for supporting our farmers and land managers, who play such a vital role as stewards of the landscape. The Government welcomes the Review of National Parks and Areas of Outstanding Natural Beauty led by Julian Glover - the first of its kind for generations - to ensure our designated landscapes can flourish in the years ahead.

In my visits to AONBs around the country, I have been struck by the passion of many people - farmers, volunteers, and hard-working staff - for the beautiful places they live and work. In this spirit I am delighted to welcome publication of this Statutory Management Plan for the Isles of Scilly AONB. It is significant that this plan will be delivered in partnership by those who value the Isles of Scilly AONB. I would like to thank all those involved in preparation of this document, and wish you the best of success in bringing it to fruition.



A handwritten signature in black ink that reads "Gardiner of Kimble".

**Lord Gardiner | Parliamentary Under Secretary of State  
(Minister for Rural Affairs and Biosecurity)**

# Welcome from the Chairman

The environment has never been more in our collective consciences than now. Government is seeking to set the country on a sustainable course via a variety of measures, not least in its 25 Year Environment Plan and Net Zero Carbon goals. Over previous decades however, society has expected more and more from once abundant natural resources to meet our demand for products and services. Whilst the environment has great capacity to provide for the needs of society, it is widely recognised that our demands now far outweigh what the planet can supply. These resources, or natural capital, including biodiversity, air, soil, and water are used to provide raw materials, and food, as well as to dispose of waste products.

Scilly is often seen and celebrated as a beacon of unspoiled environment and for that reason the link between our natural capital and our local economy is perhaps stronger than in many other locations. Whether fishing, agriculture or the visitor economy, the Scillonian environment underpins them all and without sustainable practices and conservation in place, the longevity of these essential enterprises is uncertain. The island's viability and fortunes have always been closely vested in the very finite services nature provides and the COVID-19 pandemic has reaffirmed the value of these and our need to access nature, more than ever.

When enjoying the island's environment whether from land or the water, some natural capital is wonderfully striking and obvious in the landscape such as our famous Puffins, abundant Elm trees, seasonal visitors like Little egrets and Thrift across the headlands. However, it is all too easy to overlook some of the less visible, but equally as important features which are key to the health of Scilly's delicate ecosystems such as the condition of our soils and seagrass beds, the tiny Least adder's-tongue, and the even smaller, Red-barbed ant.

Society is becoming more aware and better informed about the pressures on nature and what can be done to address them, and thankfully the Isles of Scilly are no exception. Our purple heathlands, golden beaches and turquoise seas will continue to support our economy and attract visitors, but we should expect a deeper level of understanding beyond just the natural beauty, as to how the island's natural capital is managed sustainably for future generations. This Management Plan sets out how that will be done, and I urge all those who are able to promote, share and positively effect the actions identified in the plan, to do so enthusiastically.



**Luke Humphries | Duchy of Cornwall  
Deputy Land Steward - Isles of Scilly**

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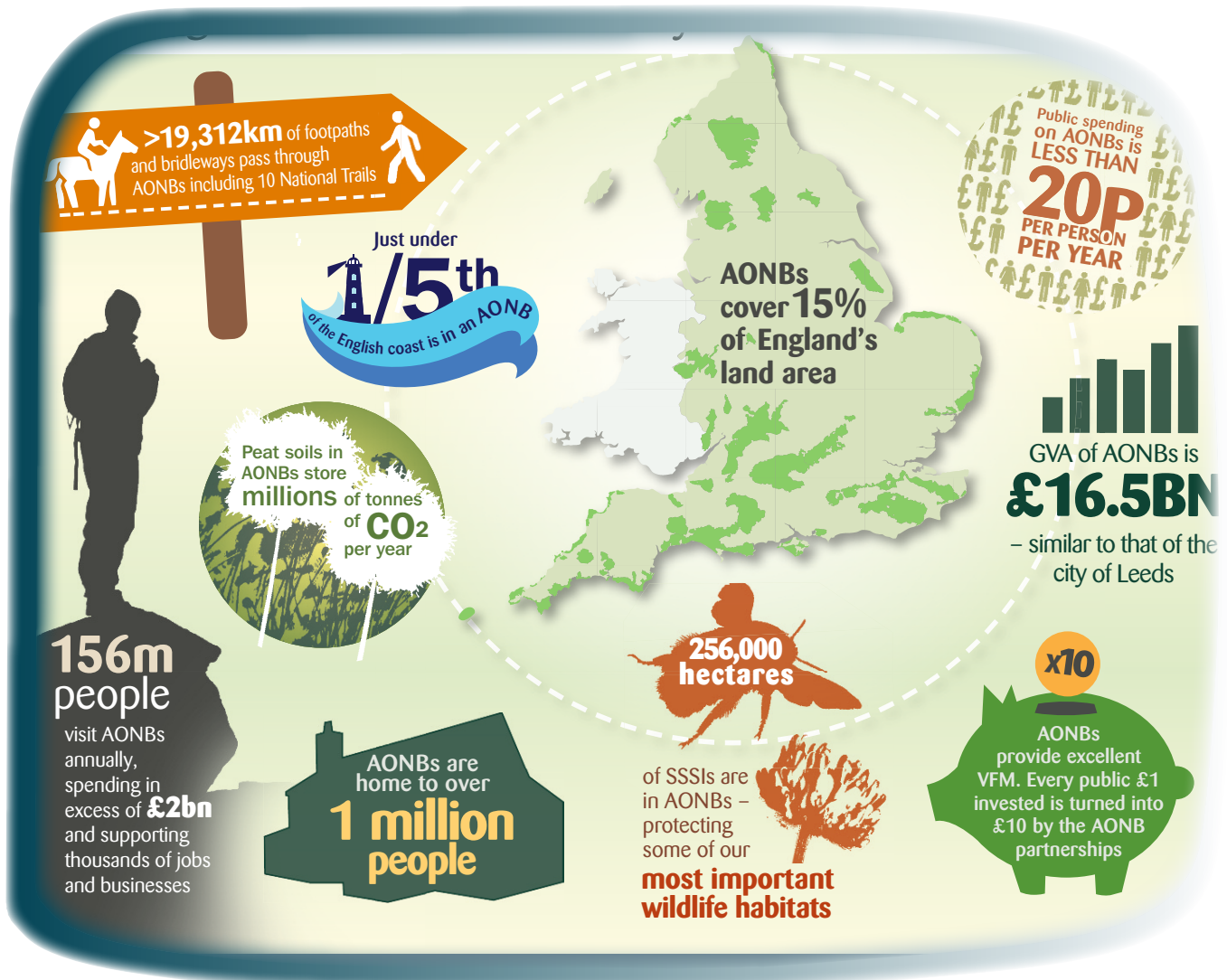
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# Chapter 1 | Introduction

- A** Areas of Outstanding Natural Beauty (AONBs) are nationally important protected landscapes.
- O** The Isles of Scilly are one of forty-six AONB's in England, Wales and Northern Ireland.
- N** AONB's are equivalent to the UK's thirteen national parks in terms of their landscape quality, scenic beauty and planning status, constitute our finest countryside and are protected in the national interest for future generations.
- B** At an international level AONB's are also recognised by the International Union for the Conservation of Nature (IUCN).



Areas of Outstanding Natural Beauty | A designation for the 21st Century

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## 1.1 | The Purpose of AONB Designation

AONB's are designated under the National Parks and Access to the Countryside (NPAC) Act 1949 and in 1991 the Countryside Commission confirmed the purposes of AONB designations.

- ┆ The primary purpose of the designation is to conserve and enhance natural beauty;
- ┆ Subsequent legislation has emphasised that in pursuing this primary purpose, account should be taken for the needs of agriculture, forestry and rural industries as well as the economic and social needs of local communities. Due regard should be paid to endorsing sustainable forms of social and economic development that enhances the natural and historic environment;
- ┆ Though recreation is not an objective of the designation, the demand for recreation should be met insofar as it is consistent with the conservation of natural beauty.

Together with National Parks, AONB's represent our most outstanding landscapes; unique and irreplaceable national assets, each with such distinctive character and natural beauty that they are recognised internationally as part of the global Protected Areas Family to be managed in the interest of everyone – residents, businesses, visitors, and the wider public - and protected for future generations. However, the Landscapes Review 2019 highlighted that managing landscapes for natural beauty has left them largely denuded of biodiversity and that this must be addressed in future AONB management plans.

## 1.2 | Duty of Regard

The recognition of the role of AONBs and the strengthening of the 1949 Act was confirmed in The Countryside and Rights of Way (CRoW) Act 2000 which provided improved measures for management of AONB's. There are three key sections concerning AONB's within the Act:

- ┆ Section 85 places a duty on all public bodies *'to have due regard to the purpose of conserving and enhancing the natural beauty'* of AONB's when coming to any decisions or carrying out activities relating to or affecting the designated area.
- ┆ Sections 89 and 90 place a statutory duty on local authorities with an AONB in their area to prepare a Management Plan *'which formulates their policy for the management of their area of outstanding natural beauty and for the carrying out of their functions in relation to it'* and thereafter to review adopted and published Plans at intervals of not more than five years.
- ┆ Section 92 clarifies that the conservation of natural beauty includes the conservation of *'flora, fauna and geological and physiographical features.'*

## 1.3 | The Colchester Declaration

The 2016 'State of Nature' report demonstrated that 15% of UK native species are under threat of extinction and upwards of 53% are in decline and suggested that the UK is among the most nature-depleted countries in the world. In combination with global climate breakdown, urgent action is needed to address this situation.

In January 2018, the UK government published 'A Green Future: Our 25 Year Plan to Improve the Environment', with its ambitious target to be the *'first generation to leave the environment in a better state than we found it.'*

One of the first actions from the 25-year plan was a review of Designated Landscapes (The Landscape or Glover Review, 2019), interim findings of which stated that *'more must be done for nature and beauty.'* Expanding from this the Colchester Declaration of 2019, a pledge made jointly by the AONB Partnerships, sets out to redress the declines in species and habitats within the context of a wider response to climate change. The declaration sets out specific ambitious targets over a 10-year period pledging to:

- 1 Enable an approach which creates opportunities within AONB's for people to make an emotional connection with nature;
- 1 Prepare a Nature Recovery Plan for each AONB;
- 1 Embed an Ecosystem Services approach into all AONB Management Plans;
- 1 Ensure all AONB Management Plans include meaningful measures around climate change mitigation and adaptation, including clear, measurable targets within delivery plans, to support Net Zero;
- 1 Have at least 200,000ha. of Sites of Special Scientific Interest (SSSIs) within AONB's in favourable condition;
- 1 Have at least 100,000ha. of wildlife-rich habitat outside of protected sites created/restored in AONB's to further support the natural movement of plants and animals;
- 1 Have at least 36,000ha. of new woodland planted or allowed to regenerate in AONB's following the principle of "the right tree in the right place";
- 1 Each AONB immediately adopting a species on the threatened list (IUCN GB Critically Endangered and Schedule 41 NERC Act) and preparing and delivering a Species Action Plan; at least thirty species relevant to AONBs will be taken off the list by 2030.



## 1.4 | The Isles of Scilly AONB

The Isles of Scilly were designated an AONB in 1975 and are the smallest AONB designation in the UK measuring 16km<sup>2</sup>. There is a resident population of 2,200 people across this remote archipelago of five inhabited islands comprising of 1,700 on St Mary's, 175 on Tresco, 135 on St Martin's, 90 on Bryher and 80 on St Agnes.

In total the AONB encompasses over 200 low-lying granite islands, stretching from the Western Rocks in the far south-west to the large, rocky outcrops of the Norrad (Northern) Rocks, through to the scattered low-lying uninhabited Eastern Isles.

Though the AONB is a landscape designation that only extends to mean low water, the marine environment and its maritime character forms an essential component of the natural beauty of the AONB. Its location on the eastern edge of the Atlantic Ocean gives a deep sense of remoteness and tranquillity, a landscape dominated by its environment. The location and climate also help to support rare and threatened species which cannot be found elsewhere in mainland Britain and this is reflected in the number of protected site designations with the islands having the densest number of sites anywhere in the UK.



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## 1.5 | Managing the Isles of Scilly AONB

A vast proportion of the AONB is under the private ownership of the Duchy of Cornwall (some freehold's do exist on St Mary's), a unique situation within AONB's. Much of the land is tenanted across each island with the largest tenant being the Isles of Scilly Wildlife Trust which leases over 50% of the archipelago, including most of the coastal headlands, and all the uninhabited islands. The Dorrien-Smith family lease the island of Tresco in its entirety.

The formal legal responsibility for both development control and for management of the AONB lies with the Local Authority. In addition, the duty of all public bodies and statutory undertakers to ‘have regard’ for the AONB’ places an obligation on a wide range of organisations not just to consider the detrimental impacts of their policies and activities outside as well as within the boundaries of any AONB, but also to consider how they might benefit the special qualities of the AONB. The AONB Management Plan is a place-based plan derived through local consensus. It seeks to define the approach to conserving and enhancing the natural beauty of the AONB through the application of local solutions to local challenges which respect the national and international importance of the AONB. It is a plan not just for the partnership but for all who live and work within the AONB.

Delivery of the Isles of Scilly AONB Management Plan is coordinated by the AONB partnership, bringing together the Council of the Isles of Scilly (a unitary authority), the Duchy of Cornwall, Isles of Scilly Wildlife Trust, Tresco Estate, RSPB, various statutory agencies including Natural England, English Heritage, the Isles of Scilly Inshore Fisheries and Conservation Authority (IFCA), and Islands Partnership (destination management organisation).

With core funding from DEFRA, the Council of the Isles of Scilly (host authority) has for the last 5 years provided a “grant in aid” to the Isles of Scilly Wildlife Trust to deliver elements of the Management Plan through an annual Delivery Plan.

The AONB partnership members also work with the Cornwall and Isles of Scilly Local Enterprise Partnership (LEP) and the Cornwall and Isles of Scilly Local Nature Partnership (LNP), to raise issues and develop opportunities which the AONB Partnership can deliver.

## 1.6 | Connecting with Others

The Isles of Scilly AONB partnership is a member of the National Association for AONB’s (NAAONB), a member of the South West Protected Landscapes Forum (SWPLF) and EUROPARC (Atlantic Isles), providing a voice for protected landscapes at a local, national and European level to help raise awareness, promote best management practices and provide support.

The principles of this Management Plan including the Colchester Declaration and the Ecosystem Approach can be applied to landscapes outside of the Isles of Scilly AONB which can help influence future policy and direction and enhance the protection of other AONB’s and their landscapes. These principles will also be used to deliver projects across the AONB promoting collaboration across the islands making best use of available resources for its protection.

## 1.7 | A Vision for the Isles of Scilly AONB

- ┆ The Isles of Scilly AONB is beautiful, tranquil and there is an abundance of nature.
- ┆ The AONB is understood as a store of natural capital which is conserved and managed to maximise the benefits available (clean water, clean air, productive soils, functioning ecosystems)
- ┆ The islands communities are thriving, housed affordably, and enjoying a range of health and well-being benefits due to the wonderful environment.
- ┆ The natural and cultural heritage of the island's landscapes are the basis for a range of education, learning and volunteering opportunities for all ages.
- ┆ The islands landscapes, townscape, seascapes and heritage assets are recognised as intrinsic to the tourism economy and their restoration and protection is valued effectively.



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# Chapter 2 | Key Approaches in this Management Plan

## 2.1 | The Ecosystem Approach

The three core principles of the Ecosystem Approach are:

**People** { To ensure that natural capital is managed in a fair and equitable way, those people that are involved in the management of the natural capital of AONB's and those that benefit from the ecosystem services the natural capital provides, should play a central role in the decision-making process. Development of partnership working and connecting with others beyond the AONB boundary will be essential to gather views and to implement action.

To ensure resilience of natural capital, the complex functions and processes which underpin the ecosystem services within AONB's need to be fully integrated into decision making within our terrestrial and marine environments. It is essential that these vital processes and functions are maintained and protected and not taken for granted.

**Systems** }

**Value** { Anyone who lives, works in or visits the Isles of Scilly AONB benefits from the ecosystem services provided by natural capital. These services underlie health, wealth and well-being and each has a value. Diverse views are held on the value and benefits (monetary and non-monetary) of the natural capital of the AONB and these views must be recognised and reflected in any decision-making processes.

Embedding the above core principles into the AONB management plan will help deliver the targets set out in the Colchester Declaration 2019 and realise the ambitions which the Government set in Biodiversity 2020 (the Convention on Biological Diversity) and more recently in the 25 year Environment Plan (25YEP).

## 2.2 | Nature Recovery Networks (NRNs)

The Landscapes Review (2019) recognised that designated landscapes needed to do more for nature and to enhance biodiversity and stated that all new management plans should set clear priorities and actions for nature's recovery. The Colchester Declaration (2019) sets out the NAAONB's collective ambition to do more by including a pledge that each AONB should have a Nature Recovery Plan.

AONB's will need to consider what action is needed to put nature into recovery; where and at what scale in order to form an ecologically coherent and resilient network of sites to deal with development pressures, land use change and a changing climate.

To achieve this there will be a requirement (Draft Environment Bill Clause 96 (4) and (5)) to develop local NRN maps and a Local Nature Recovery Plan (LNRP). The following principles should be considered when agreeing the local approach for development of the network and when creating NRN maps:

- ⌞ Map locally and in partnership but respond to emerging national frameworks;
- ⌞ Base mapping on the best available evidence;
- ⌞ Aim to create better, bigger, more joined up places for nature;
- ⌞ Build networks upon existing terrestrial habitats;
- ⌞ Reflect that nature's life support systems are a critical foundation for humans;
- ⌞ Design networks which support thriving populations of species;
- ⌞ Promote resilience and adaptability to a changing climate;
- ⌞ Reflect that nature works at all scales and everywhere;
- ⌞ The process should be accessible, comprehensible and relevant to all stakeholders;
- ⌞ LNRP should be designed to influence decision-making and facilitate long-term, efficient funding for nature's recovery.

The NRN concept is especially relevant to the Isles of Scilly AONB partnership as it can act as the lead in the production of an LNRP and champion its delivery. This Management Plan can provide the framework when planning for a Nature Recovery Network for the Isles of Scilly and this strategic spatial planning framework will be a key tool in supporting the decision-making process of Local Development Plans which can help to:

- ⌞ Inform biodiversity net gain conditions in planning permissions;
- ⌞ Identify and protect catchment-based approaches to freshwater conservation;
- ⌞ Provide information on and safeguard locations for site-based nature-based solutions to climate change;
- ⌞ Ensure greater access to nature;
- ⌞ Reduce or prevent the risk from recreational disturbance in a tourism destination.

The Isles of Scilly AONB partnership also has an obligation to ensure that marine ecosystems are not considered in isolation ensuring that ecological connections are made throughout local Marine Protected Areas including those that connect terrestrial habitats to the sea.

## 2.3 | Sustainable Development

'17 Goals for People, for Planet' a shared vision to end poverty, rescue the planet and build a peaceful world was adopted in 2015 by all UN Member States as part of the 2030 Agenda for Sustainable Development.

Five years on and progress was not advancing at a scale required to reach these targets, so in 2019 the UN Secretary General called on all sectors of society for a *'Decade of Action'* to deliver these global goals at three levels: global action, local action and people action.

The goals are completely entwined with the key concepts of this plan and its delivery, as we as humans are wholly dependent on the natural world and its health. In a local context, the following key sustainable development goals which underpin this plan include:

- ⌞ Good health and well-being;
- ⌞ Clean water and sanitation;
- ⌞ Affordable and clean energy;
- ⌞ Decent work and economic growth;
- ⌞ Industry, innovation and infrastructure;
- ⌞ Sustainable communities;
- ⌞ Responsible consumption and production;
- ⌞ Climate action;
- ⌞ Life below Water;
- ⌞ Life on Land;
- ⌞ Partnerships.

## 2.4 | The Landscape Approach

The European Landscape Convention (ELC) define 'landscape' as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors." Therefore, an understanding of landscape character should always guide the AONB Partnership's work. The Landscape Approach and Landscape Character Assessment not only aids understanding of landscapes but can also assist in making judgements and decisions concerning the management of change. The involvement of people is key and both communities of place and communities of interest must be engaged.

Stating that “the landscape is an important part of the quality of life for people everywhere,” this plan acknowledges that ‘landscape’ can also provide a benefit and a service, either as a resource in its’ own right, or as an aesthetic experience and visual amenity. This sits well with the Ecosystems Approach to integrated management (see Figure 1).

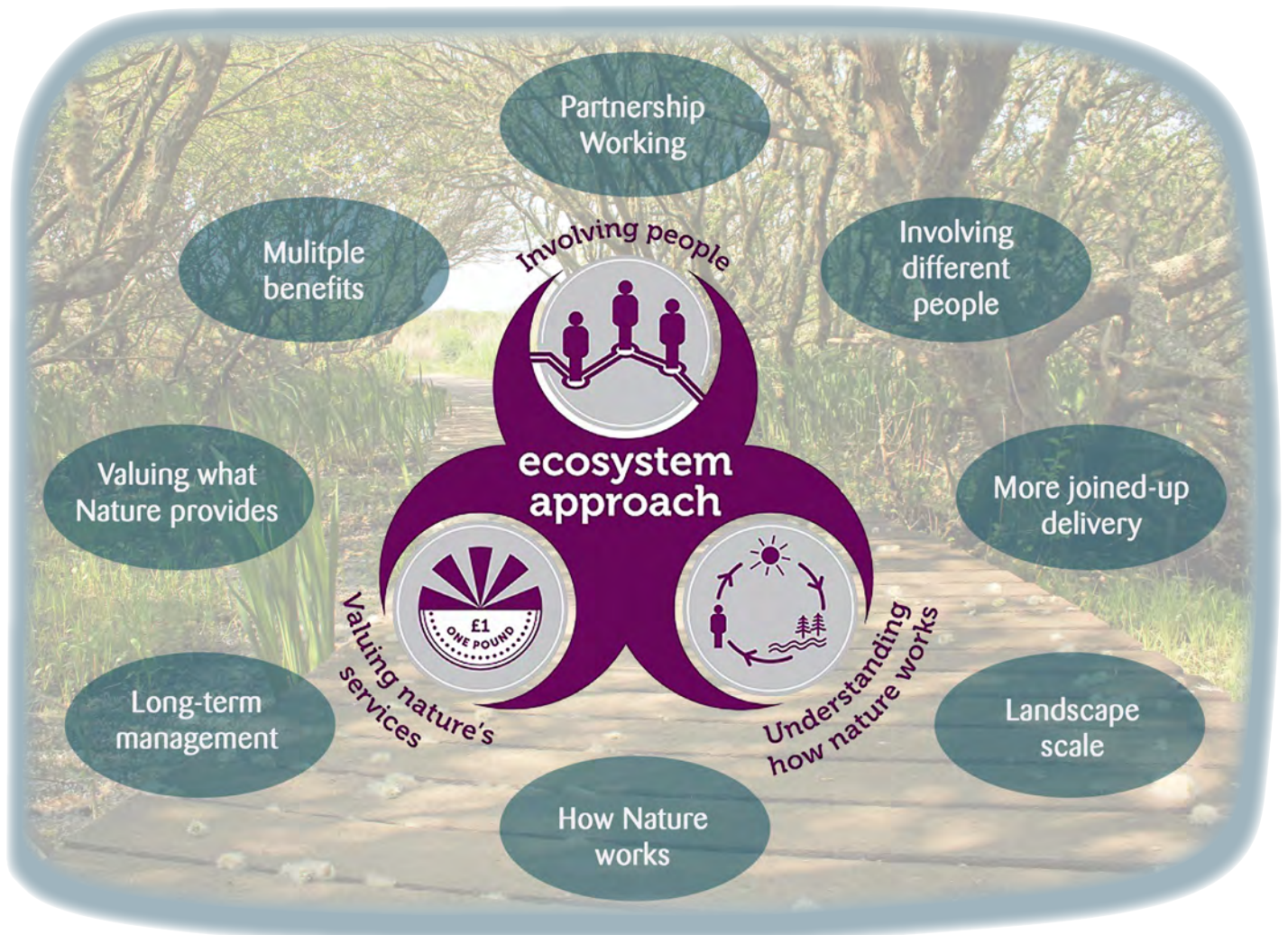


Figure 1 | The Ecosystem Approach

Adapted from {ecosystemsknowledge.net

In promoting the protection, planning and management of land and seascapes the ELC reinforces the approach of landscape character assessment. In conjunction with the other key approaches in this chapter and in line with sustainable development goals, this management plan will use landscape character to help guide conserve, enhance or restore the distinct character and qualities of the landscape. An example of how these approaches operate in practice is given in Chapter 6.

# Chapter 3 | This Management Plan

## 3.1 | A New Focus

The 2010 'Making Space for Nature' review, the most recent 2019 'State of Nature' report and the February 2021 'The Economics of Biodiversity: The Dasgupta Review' have been explicit about the crisis in nature and what needs to be done to bring about its recovery. The Landscape Review (2019) also acknowledged that AONB's are not currently delivering on their duty to nature and that "the natural beauty which led to nature's protection in the first place is being lost." The outline proposals drawn from the Landscape Review alongside the pledge from The Colchester Declaration form the backbone of this new management plan. The production of this plan provides a framework for a Nature Recovery Plan for the AONB that will support delivery of the following:

- 1 Mapping and assessment of the state of nature and natural capital to help inform future policy;
- 1 Setting clear priorities and actions for nature's recovery;
- 1 Defining the AONB partnership's central role in the development and delivery of the Nature Recovery Plan;
- 1 Setting clear actions and priorities to make our designated landscape more resilient to climate change, expanding on the work already undertaken;
- 1 Connect with all people, of all backgrounds to value nature and promote healthy landscapes that cater for all assisting in improving the nation's health and well-being;
- 1 Supporting the Isles of Scilly to become a leader in sustainable, responsible tourism that works for nature, the resident community and visitors;
- 1 Prioritisation of public investment towards environmental benefits by working with tenant farmers and other partnerships through the delivery of agri-environment schemes (ELMS) or rural development grants;
- 1 Investing in nature to deliver environmental growth which helps to support socio-economic stability for the island's communities.

The Natural Capital Atlas (Natural England 2020) uses the best available and nationally consistent evidence to map out indicators showing asset quality, quantity and location at a scale of 5kmsq. Further investigation has revealed that this is too broader spatial scale for Isles of Scilly. It has also become clear that Scilly has been left out of some national data sets and limited ecological data exists for the islands. Therefore over the life of this plan, it is critical that we identify what data exists, and where there are gaps, a plan for surveillance is put in place.



## 3.2 | Who is the Plan for?

The AONB Management Plan provides a policy framework which brings together partners to help design, resource and implement the priorities set out specifically for the Isles of Scilly AONB designation. Its main audiences are members of the Isles of Scilly AONB Partnership:

- ⌄ The Council of the Isles of Scilly as the planning and host authority;
- ⌄ The Duchy of Cornwall as the principal landowner;
- ⌄ The Isles of Scilly Wildlife Trust and Tresco Estate as the main tenants (or leaseholders);
- ⌄ The Islands Partnership (IP) as the island's destination management organisation;
- ⌄ Historic England, RSPB, Natural England, Isles of Scilly IFCA, South West Water, farm tenants & the Environment Agency as members of the partnership and wider advisory group.

The plan also provides guidance for:

- ⌄ Residents of Scilly; this plan will help to identify their priorities for action;
- ⌄ Visitors to the islands; to enable them to enjoy and experience the AONB and play a part in its sustainable development;
- ⌄ The Cornwall and Isles of Scilly Local Nature Partnership; through the Environmental Growth Strategy for Cornwall and the Isles of Scilly;
- ⌄ The Cornwall and Isles of Scilly Local Enterprise Partnership through the Environmental Growth Strategy for Cornwall and the Isles of Scilly and the Strategic Economic Plan - Island Futures (2014).



### 3.3 | The AONB Management Plan in relation to other Plans, Processes and Strategies

This plan will

- Guide and inform all other plans and activities which may affect the AONB designation including those originated outside of the Isles of Scilly, so that they can contribute to the continued conservation and enhancement of the AONB designation.
- Support local delivery of the Government's 25 Year Environmental Plan including the development of a Local Nature Recovery Strategy;
- Set out clear actions and priorities in the Colchester Declaration including providing the framework for a Local Nature Recovery Plan. Adopt an at-risk species and create a Species Action Plan setting clear and meaningful measures on climate change mitigation and adaptation, including targets to meet net zero;
- Help to deliver the ambitions and targets of the Cornwall and Isles of Scilly Environmental Growth Strategy;
- Gather information on our natural capital and ecosystem service provision, to provide the evidence base for future decision-making for the Isles of Scilly Local Plan;
- Utilise the evidence gathered on the natural capital and ecosystem service provision of the marine environment, to provide an evidence base for the South-west marine plan;
- Work to support the delivery of the Islands Partnership Destination Management Plan to help all beneficiaries, including visitors recognise the value of Isles of Scilly natural capital and make it central to a richer visitor experience;
- Work alongside the Council of the Isles of Scilly Climate Emergency Strategy with the target to become carbon net zero;
- Help to deliver the objectives and actions of A Heritage and Cultural Strategy for the Isles of Scilly (2004);
- This plan is also influenced by other local, national and international strategies such as the UN Sustainable Development Goals, the Paris Agreement on Climate Change and the Aichi Global Biodiversity targets, to ensure global thinking whilst acting locally;
- The Economics of Biodiversity: The Dasgupta Review published in February 2021, is the most up to date report yet detailing how our economies, livelihoods and well-being all depend on our most precious asset: Nature. The report states how we have collectively failed to engage with Nature sustainably, to the extent that our demands far exceed its capacity to supply us with the goods and services we all rely on and that our unsustainable engagement with Nature is endangering the prosperity of current and future generations.

# Chapter 4 | Statement of Significance

## 4.1 | Landscape Character

Set on the eastern edge of the Atlantic Ocean approximately 45 kilometres south-west of Land's End, Cornwall it is the remoteness of the archipelago that first sets the scene. With an underlying geology that is almost homogeneously acidic granite, beaches and sand bars almost exclusively siliceous with little or no calcareous component and 50 of the 200 islands supporting only basic vegetation, the islands at first glance appear to be an exposed and windswept group of treeless granite outcrops rising no higher than 51 metres above sea level. However, looking more closely it becomes clear that the islands possess a striking diversity of small-scale landscapes.

Each of the islands has its own unique character and distinctive feel, a consequence of their position, topography, and the resultant exposure to the elements over millennia. Agriculture dominates the centre of most of the inhabited islands, consisting of traditional, small, enclosed fields, or hilltop fields with pasture. Many of the exposed headlands are dominated by 'waved' maritime heath, particularly on the islands of Tresco, St Martins and Bryher in the north and west of the archipelago in contrast to the mixed heath and grassland mosaics of the low-lying coastal headlands of Wingletang Down on St Agnes in the south and the rocky coastal heathlands of St Mary's. Permissive paths, sandy beaches and sheltered bays all provide opportunities for peace, tranquillity, leisure, and recreation.



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The uninhabited islands are important wildlife refuges, many are SSSIs designated for their rare vascular plants and the national and international important populations of breeding seabirds & seals they support. These islands also provide fine glimpses into the past, with many examples of archaeology, including the whole-island scheduled landscape of Samson. During Autumn, the islands provide a refuge for migratory birds, some blown off course from as far away as the USA and Siberia. A delicate balance between nature and tourism is required on many of these islands to ensure wildlife has space to thrive. Many of the islands are connected at low tide with expanses of white sand flats and rocky habitats. The large, sweeping vistas across the uninhabited islands and offshore rocks and the ever-changing colour of water during the seasons, create a complex seascape.

The islands are also surrounded by numerous rocky reef habitats which support rich communities of corals, sponges and corals; and a significant extent of Seagrass which provides important functions as a nursery ground for many species, and direct benefits for carbon storage and protection of coastlines marine archaeological heritage from submerged remains of field boundaries to a high concentration of historic wrecks. Though most of this environment falls out of the AONB's designated boundary, development, business, recreation, and leisure activities can have a profound effect in these settings as well as across the rest of the AONB. Therefore, extreme care must be taken when making management decisions within these special areas.

## 4.2 | Natural capital of International and National Importance

Despite being the smallest AONB (measuring only 16 square kilometres), the striking diversity in landscape is highlighted by the 18 priority habitats identified in the Isles of Scilly 2008 Biodiversity Audit. Identified as being nationally or internationally important for their species composition, scarcity or decline, these habitats are now also recognised for the key ecosystem services they provide such as coastal protection, carbon storage and sequestration, freshwater storage and freshwater quality along with providing a sense of place and recreational activities. Key habitats include coastal sand dunes, lowland heathland, maritime cliff and slope, ponds, reedbeds and seagrass.

The quality and diversity of the character of these habitats comes from the species that constitute them or use them. Of those, 293 have been identified as priority species. Of relevance to the Isles of Scilly AONB Management Plan are those species identified as Critically Endangered or appear in Schedule 41 of the Natural Environment and Rural Communities Act 2006 (NERC). The Colchester Declaration states that each AONB will immediately adopt a species from these lists and deliver an action plan that will assist in removing this species from the list by 2030. Species including Gilt-edged lichen (*Pseudocyphellaria aurata*), Chamomile (*Chamaemelum nobile*), Red barbed ant (*Formica rufibarbis*) and Roseate tern (*Sterna dougallii*) require these Action Plans.

The marine environment, a key component of the natural capital of the AONB, particularly the subtidal and intertidal areas, possesses a wide range of species across diverse habitats including reef, intertidal rock and subtidal sands with seagrass beds that host most notable species including Orange peel bryozoan and the nationally rare Cushion star, Giant goby and Scarlet and Gold star corals, along with a diverse range of bivalve molluscs, gastropod snails, kelp, seaweeds and jellyfish.

The archipelago's size and remoteness provide a refuge for species not found elsewhere in mainland Britain.

Highlights illustrating the importance of the biodiversity of the Isles of Scilly include:

- ┆ The only location in the UK for the Critically Endangered Gilt-edged lichen;
- ┆ The only location in the UK for Dwarf pansy;
- ┆ The only location in the UK for Least adder's-tongue fern ;
- ┆ The only location in the UK for Orange bird's-foot;
- ┆ The only location in the UK for Orange peel bryozoan;
- ┆ Only one of 2 locations in the UK for Red-barbed ant;
- ┆ 25% of all UK and Ireland species of Lichen (550 species);
- ┆ One of a handful of locations remaining in the UK for Elm;

- ‡ Internationally important seabird assemblage including Storm petrel, Lesser black-backed gull and European shag and nationally important number of Manx shearwater and Greater black-backed gull;
- ‡ Largest diversity of seabirds in the UK – 13 species that include Fulmar, Kittiwake, Common tern and 3 species of Auk;
- ‡ Rare arable plants including Purple ramping-fumitory, Western ramping-fumitory and Smaller tree-mallow;
- ‡ The most southern distribution of Common pipistrelle and Brown long-eared bat in the UK;
- ‡ Unique sub-species of Meadow brown and Speckled wood butterfly, Lesser white-toothed shrew and Sea rush, found nowhere else in Britain.

## 4.3 | Nature Conservation Designations

The importance of the AONB's Natural Capital (primarily due to the location and climate) is reflected through its high density of nature conservation designations:

- ‡ Globally important Ramsar site designated for supporting internationally important populations of Lesser black-backed gull, European Storm petrel and Shore dock. Habitats of national importance including heathland and higher plants including Orange bird's-foot and Dwarf pansy, totalling 407ha;
- ‡ 26 Sites of Special Scientific Interest (SSSI) covering 34.7% of the island's landmass designated primarily for their plant and seabird assemblages with 5 SSSI's designated for their geology;
- ‡ At a European level the islands and their coastal seas are recognised as a terrestrial Special Protection Area (SPA) for the population of Lesser black-backed gull and European storm petrel, along with the assemblage of breeding seabirds (13 species), one of only seven sites in England that meet these criteria. The SPA was extended in November 2020 to include a marine extension to offer new protections for European shag and Great black-backed gull;
- ‡ At a European level the islands are recognised as a Marine Special Area of Conservation (SAC) designated for the extensive sandflats and sandbanks (Annex 1 habitats under [The Conservation and Habitats Directive 2017](#)) which support extensive seagrass beds and subtidal sediment communities. The SAC also supports a recovering population of Atlantic grey seal and the higher plant, Shore dock;

- 1 Within and outside the Marine SAC are 11 Marine Conservation Zones (MCZs) offering protection to those habitats and species not protected by the SAC. These include species such as Spiny lobster, 2 species of Stalked jellyfish, Pink sea fans, Sea fan anemones, Sunset cup coral and the nationally scarce Orange peel bryozoan.

Due to the small size of the AONB, these sites and habitats are relatively close together and the concentration of mutually dependent species within a limited area creates a complex, but delicate ecological network. The ecological network on the islands can be improved by focusing on achieving better management of existing habitats, expanding areas of habitat, creating more areas of habitat and joining these up. Doing this will increase the resilience of the islands' habitats and species, help them adapt to climate change, improve ecosystem service delivery and enhance the aesthetic quality of the landscape.

## 4.4 | Historic and Built Environment Conservation Designations

The islands have supported human activity for over 4,000 years, providing a wealth of understanding into how the previous occupiers of the land shaped the local environment and utilised its resources. It is their actions that have formed many of the key components of the landscape today, from the late Neolithic chambered tombs and standing stones, to the fortifications of the 17th Century English Civil War, the commissioning of the Tresco Abbey Gardens in the mid-nineteenth century and the remains of World War II defences. As a result, the islands have the densest concentration of terrestrial statutorily protected sites in Britain. These sites are not restricted to land; the changing environment and the influence of the sea is reflected at low tide by evidence of early human occupation such as field systems, settlements and cists, and shipwrecks, including HMS Association in 1707 to Wheel Wreck of the mid 19th Century. The [Historic England Heritage at Risk Register 2020](#), lists 2 buildings/structures and 30 archaeological features “at risk”.

The breadth of this history and shaping of the environment includes:

- 1 238 scheduled monuments covering over 900 individual archaeological sites;
- 1 2 Scheduled landscapes; Shipman Head Down on Bryher and the now uninhabited island of Samson;
- 1 129 Listed buildings;
- 1 1 historic registered park and garden;
- 1 5 protected wrecks, with a further 771 known wreck sites;
- 1 2,238 records on the Cornwall and Isles of Scilly Historic Environment Record (HER) of other undesignated archaeology and findspots. \*

\* { All Historic and Built Environment Conservation Designation figures are based on 2019 data

## 4.5 | Culture and Sense of Place

The islands have long attracted myths, tales and intrigue, adding to their appeal to all who visit and there is a strong sense of place amongst the resident population, particularly those who can trace their history through many generations. Often described as ‘a world apart,’ where daily life is governed by the tides and the weather, the history and culture of the islands are intrinsically linked to the sea. The economic importance of ship building, trading, pilotage and, to a lesser extent, fishing has in the last 50 years been replaced by tourism. Pilot gig racing has its roots in the Isles of Scilly and the annual World Championships are an event the islands have proudly held since 1990, although sadly cancelled because of the COVID-19 pandemic in 2020 and 2021.

The remoteness of the Isles of Scilly leads to exceptionally dark night skies, inspiration for artistic creation and a level of peace and tranquillity rarely found on the UK mainland. Many aspects of the way of life are reminiscent of a time past which adds to the charm and sense of place loved by so many.

Event-based tourism has proliferated in recent years, making the most of themes centred around the culture, sense of place and the environment; Walk Scilly, Art Scilly, Creative Scilly, Otillo Swim Run World Series, Scilly Swim Challenge, Red Wing Sailing Championships and A Taste of Scilly have all encouraged people to visit the islands to get a snapshot of island life provided by those that live and work on the islands.



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# Chapter 5 | Key Threats and Opportunities

## 5.1 | Political

### Brexit

At the time of writing the United Kingdom (UK) has left the European Union (EU) and a new trading deal has been agreed. The outcome of this deal will have significant impacts on many areas of the UK, in particular rural areas and how they are managed. This may include:

- ┆ A new Environment Bill, which will incorporate changes to national legislation regarding environmental protection, particularly those replacing existing policies at EU level;
- ┆ New agreements for international trade with the EU and other countries, or trade blocks;
- ┆ The implementation of the Agriculture Act, particularly what investments will replace the Common Agricultural Policy.

### National Environmental Policy

The government's national environmental plan "[A Green Future: Our 25 Year Plan to Improve the Environment](#)", makes bold statements for nature's recovery. These are welcomed by the Isles of Scilly AONB, particularly where it provides high-level support for environmental enhancement and compliments [The Colchester Declaration](#). Of significance to the Isles of Scilly are the government's policy to support natural capital and our interdependence on the natural environment to sustain our communities into the future. This includes:

- ┆ The recovery of nature and the enhancement of our landscape;
- ┆ Re-connecting people to their environment to improve their health and well-being;
- ┆ Catchment-based approaches to water quality and quantity issues;
- ┆ Securing clean, healthy, productive, and biologically diverse seas;
- ┆ Using land sustainably;
- ┆ Reducing pollution and waste and improving resource efficiency.



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## National and Local Housing Policy

“Planning for the Future”, the government’s national policy on housing sets out a vision to support communities to deliver more homes for local people. The policy presumes a large increase in the number of houses being built, with only an assumption that this will be in favour of sustainable development. As the Isles of Scilly rank within the top 10% for living environment deprivation and in the top 30% for barriers to housing and services in England these policies appear welcome, however the AONB partnership should consider:

- ⌋ Negative visual impacts on the landscape from proposed developments particularly those which require new infrastructure such as access roads or are built above 2 storeys;
- ⌋ Potential negative impacts on key ecosystem services and ecological functioning of proposed development sites, chosen because of their proximity to existing infrastructure (such as mains drains/electricity supply);
- ⌋ Potential negative effect of increased nutrients entering local catchments and increased pressure on drinking water resources needed by new developments;
- ⌋ Potential negative impacts from increased recreation on biodiversity, peace and tranquillity and the historic environment as a result of a growing population;
- ⌋ Missed opportunities to reach net zero if sustainable building solutions are not incorporated into the design of developments. For example, sustainable solutions to energy provision, rainwater harvesting and sustainable drainage systems;
- ⌋ All new developments adhering to the principles of ‘Build Back Better.’

## 5.2 | Socio-economic

### National and Local Housing Policy

Tourism continues and is likely to continue to be the main driver of the island’s economy into the future. This has been the message from past Local and Strategic Economic Plans. Diversification of the economy is also a continuing theme which was highlighted in the 2014 Islands Futures Strategic Economic Plan and most recently in the current Destination Management Plan as being necessary to make the islands economy more resilient.

Though Brexit and the recent events of the COVID-19 pandemic may support an increase in the number of ‘staycations’ this cannot be guaranteed in an increasingly competitive tourism market. We must also consider that the working population is also set to fall to 52% by 2030 (from 65% in 2015), which is likely to have implications on the availability to fulfil key roles within the community and economy. A consistent

theme running through past and current plans is the importance of the islands' environment. If we are to support a thriving island community into the future, economic growth should be in harmony with the environment. The opportunity here is clear; we are reliant upon our natural environment to provide us with essential resources, for healthy lives and to protect us from the threat of climate change. Therefore, to assist with economic growth, environmental growth is also necessary. Creating careers, rather than jobs for future generations in the "green economy" including nature conservation, sustainable land management and responsible tourism, could help form a new 'circular economy.'

## Deprivation, Inequality and Housing Affordability

Despite the islands being ranked amongst the 40% least deprived areas in England, the earnings on the islands are amongst the lowest in the country. A higher cost of living, much higher house prices than the mainland, a low availability of owner-occupied housing and limited access to affordable housing leads to reduced social mobility impacting on people's health and wellbeing and the potential for sustainable economic growth.

## Ageing Population

The islands population is boosted during the summer, reflecting the major influence of tourism. The population is also influenced by the outward migration of the younger generation who leave the islands to pursue post-16 education and are less likely to return due to higher house prices and fewer career opportunities. In their place, the peace and tranquillity of the islands attracts an older generation of retirees, which is estimated to represent 30% of the population by 2030. Age is not the only factor that will affect a community's health and wellbeing. How and where we live, our work and how we spend our recreation time can all lead to increased pressure on local services such as health and social care. Access to landscapes via a variety of methods, can play a critical role in developing opportunities for increasing health and wellbeing in the older population by enabling, maintaining or increasing social outdoor activities, including working with the local Wildlife Trust as volunteers. A healthy population which lives longer and can be more productive, thereby adding to economic progress, could be viewed as essential.



## Lifestyle Choice and Behavioural Patterns

The COVID-19 pandemic has had a significant impact on human behaviour. For example, people have travelled less and have been encouraged to work from home. As behavioural patterns change, the impact on nature and the environment will change as well. It has been shown that people are more aware of the importance of green and blue spaces, whilst gardens have become cherished and other natural, local resources and heritage assets have become increasingly important.

This new environmental awareness brings an opportunity, to build on the 'Blue Planet Effect' of recent years, to engage more widely about how our lifestyles and

consumption choices affect our local and global environment. The success of the Plastic Free Scilly initiative, the increased demand for locally grown food and the increased awareness of methods and cost of remotely grown and shipped food production are positive examples. The effects of climate change are all too evident with increased storminess and water shortages over recent years and so there are opportunities to build on this awareness and make better links between lifestyle choices and the effects these have on climate change.

## 5.3 | Environmental

### Climate Emergency

The most recent report from the Intergovernmental Panel on Climate Change (IPCC) has stated that human activities have already caused 1.2°C of global warming above pre-industrial levels, with temperatures likely to reach 1.5°C between 2030 and 2052 (IPCC 2018). Sea temperature is estimated to rise between 1.5°C by 2050 and 3.2°C by 2100 and sea-level rises of 1.5-2.5m during the same periods. These changes are a direct result of human industrial and agricultural activity. Limiting these global increases will require fundamental changes in human activities.

The low-lying topography of the islands means that the islands and their communities are particularly vulnerable to sea level rise, coastal erosion and the impacts of increasingly extreme North Atlantic storms. 30% of the land and most of the social and economic development is in low-lying coastal areas and is at increased risk of inundation. Increased storm events, in both frequency and severity, will also impact the main transport and freight links both inter-island and with the mainland. Climate change will also affect soil quality with increased soil erosion and changes in availability of nutrients and organic material. Rising sea levels will pose a risk to already scarce freshwater supplies through saline intrusion and inundation after storm events.

Increased temperature rise has the possibility to alter the islands ecosystems introducing or increasing the spread of species that are more tolerant of warmer climates, as is already being seen with *Pittosporum tenuifolium*.

There may be some positive opportunities from climate change, such as increased staycations, or potential changes in the abundance of food supply for the island's seabird assemblage, however, most effects will be negative for the islands if appropriate action is not taken.

### Water Quality and Quantity Issues

Whilst inundation is the greatest global threat to the islands from climate change, at a local level it is the scarcity and vulnerability of the freshwater supply which poses the most significant threat. Increased usage through the summer months as the seasonal population grows and limited rainfall expected in the shoulder tourist seasons, all place a demand on the amount of water needed from this most precious of our natural resources. A limited size catchment, free-draining soils and a fractured bedrock all place significant challenges on maintaining water storage capacity. Expected sea level

rise, particularly at a time of high demand increases the risk of saline intrusion and increasing deterioration of our groundwater supplies in terms of quantity and quality. Increased storm events and the lack of appropriate infrastructure risk inundating key water storage areas, whilst continued use of artificial fertilisers, along with continued cultivation and erosion of sandy soils (which are often nitrogen-rich) will have a detrimental impact on water quality, including seawater.

This plan provides an opportunity for key stakeholders and the community to work together to mitigate these effects. Examples include water conservation measures (both agricultural and commercial/domestic) such as rainwater harvesting or natural ponds for livestock drinking; reduced freshwater abstraction, adaptive land management practices and natural coastal defences to protect key wetlands.

## Continued Biodiversity Declines

The most recent '[State of Nature 2019](#)' report states that 'statistics demonstrate that the abundance and distribution of the UK's species has, on average declined since 1970 and many metrics suggest that this decline has continued in the most recent decade.' The most significant pressures linked to biodiversity decline are:

**Climate change** - The average UK temperature is now 1°C warmer than in the 1980s (the top 10 warmest years since records began have been recorded since 2002); on average over the last decade, it has become wetter (8%), most notably in winter, whilst sea surface temperatures have risen by over 0.5°C in the same period. These climatic changes have affected the abundance and occurrence of many individual species, affecting their range, population and their phenology. For example, increased frequency and severity of storm events will result in the potential loss of the only site in the UK for the critically endangered Gilt edged lichen. Sea level rise is likely to inundate the only site in Scilly for Dwarf pansy, a vulnerable species only found in the Isles of Scilly and the Channel Islands.



**Intensification of agriculture** – The impacts of modern farming are still being seen on wildlife nationally including a loss of 97% of wildflower meadows and a 54% reduction in farmland bird species. In Scilly, horticultural intensification has led to reduced numbers of arable weeds such as Western rampion fumitory and Corn spurrey. Increased use of fertilisers has resulted in a reduction of neutral MG5 grassland and the planting of non-native hedgerows as wind breaks for narcissi is resulting in the spread of species that are more tolerant of warmer climates, as is being seen with *Pittosporum tenuifolium*

**Hydrological change** – Throughout the 20th century lowland Britain has lost 90% of all ponds as a result of neglect or human intervention; many rivers, estuaries and coastlines have become less biodiverse through man-made canalisation, weirs and flood defences, and as the population has grown, the demand for freshwater and food has increased. This has led to diffuse pollution from pesticide and fertiliser applications resulting in ecological degradation of wetlands and a significant decline in the quality of freshwater.

**Invasive Non-native species (INNS)** – Over 3,200 non-native species have been recorded in Great Britain, with 2,000 now established in the wild. Of these, terrestrial INNS have grown steadily, whilst marine INNS have increased more rapidly, particularly since 1999. 234 are known to have had a negative ecological or human impact and are more likely to be found in woodland and urban ecosystems, followed by coastal, freshwater and grassland habitats. The threat from INNS is likely to increase as climate change proceeds, potentially bringing disease to non-resistant native species. INNS may outcompete, predate or hybridise with native species, losing genetic diversity and risking extinction.

In Scilly, INNS are arguably more evident than in any other AONB in the UK, including brown rats negatively impacting Manx shearwater and Storm petrel and a prevalence of ornamental escapees which, due to a warming climate have a negative impact on designated sites and the surrounding landscape. These include *Phormium tenax* (New Zealand Flax), *Pittosporum tenuifolium*, *Coprosma repens*, *Agapanthus africanus* and *Carpobrotus edulis* (Hottentot-fig/Ice plant).

**The historic environment** – There are a range of potential risks to the historic environment; changes in agricultural practices, new developments, climate change and increased tourism.

A commitment to use the Key Approaches set out in Chapter 2 will be critical to delivering the integrated management approach needed to tackle the multiple threats and pressures which are contributing to ongoing biodiversity loss.

The threats outlined in this chapter have helped form the policy framework set out in Chapter 7 along with the mitigation methods needed to tackle these threats at the Isles of Scilly AONB Partnership and community level.



# Chapter 6 | Natural Capital, Ecosystem Services and the Ecosystem Approach

## 6.1 | Introduction

The Landscapes Review (2019) highlighted that since the early 1990's AONB host authorities have not always been able to fulfil their statutory purpose to “conserve and enhance the natural beauty, wildlife and cultural heritage” of their designated areas. Much of what happens in these protected landscapes is shaped by activities out of the authority's control, often having insufficient commitment from stakeholders and a lack of power and resources to manage or influence relevant decision making. The Review states that our protected landscapes should do more for nature and that they are best placed to become exemplars of a coherent and resilient ecological network. The review concluded that there needs to be high levels of cooperation between landowners, public bodies, businesses and the voluntary sector to ensure that a range of public environmental goods are provided to residents, local communities and the wider public within protected landscapes. The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way

More and better places for nature and people are needed. An Ecosystem Approach to land management and development which halts biodiversity loss and supports well-functioning ecosystems, promoting sustainable development will help achieve this goal. The Ecosystem Approach is now championed by many AONB's and sets out the intent to do more for nature.

## 6.2 | Natural Capital

Natural Capital can be broadly be defined as “the stock of renewable and non-renewable resources (plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people.” In short, any part of the natural world that benefits people, or that underpins the provision of benefits to people, is a form of natural capital. Critical to understanding and therefore appropriately managing our natural capital is the understanding that nature underpins human health, wellbeing, prosperity, culture and identity.

Biodiversity is the diversity of all living things. It is a fundamental component of natural capital, playing a critical role in the functioning of ecosystems and the delivery of all ecosystem ‘benefits,’ as well as being a benefit in and of itself.

## 6.3 | Ecosystem Services

Ecosystem services can be described as the benefits people obtain from natural capital. Ecosystem services are often split into a framework of:

### Supporting Services

The ecological processes of carbon, nutrient and water cycling and soil formation (these processes underpin the provision of all other ecosystem services and life on earth)

Goods, products and physical things such as food, water, wood, fibres, biomass for energy and genetic resources.

### Provisioning Services

### Regulating Services

Regulate and maintain ecosystem processes and support ecosystem functioning and productivity. These services are diverse and help to moderate the environment and include, water purification, flood protection, water storage, soil health and fertility, carbon sequestration, erosion prevention and pollination.

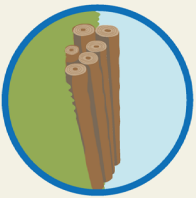
Often described as non-material benefits that contribute to our health and wellbeing. These services include, recreation, science and education, sense of place, spiritual and cultural inspiration and can often be very personal. They will differ from person to person and can be the most difficult to define or improve.

### Cultural Services

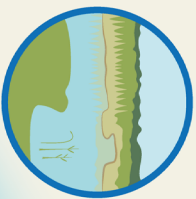
## Provisioning Services



1. Food



2. Biomass for energy



3. Drinking water



4. Water, other uses



5. Genetic resources

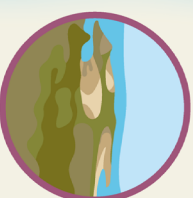
## Regulating Services



10. Coastal protection



11. Soil fertility



12. Purifying capacity  
soil, water & air



13. Pest control

## Cultural Services



6. Green recreation



7. Natural heritage



8. Symbolic value



9. Science and education



Figure 2 | Local Examples of Ecosystem Services



## 6.4 | The Relationship between Natural Capital, Ecosystem Services and Sustainability

Sustainability means living within the means of natural capital. Although much natural capital is renewable or replenishable, as it is not manufactured, it should be used at a rate which allows natural regeneration, whilst minimising damage to the environment. The benefits received from natural capital often do not consider the cost of utilising the resource from which the benefit is derived. This means that the true value of natural capital is not accounted for. For example, the removal of vegetation when ploughing a field results in less carbon uptake, a loss of soil biodiversity and disruption to the water and nutrient cycles. It takes over 100 years to replace soil suitable for agriculture and the replenishment of groundwater can take between 10 and 100 years (depending on location). Non-renewable sources of natural capital (such as soil) are either irreplaceable or can only be replaced over geological timescales.

We can promote sustainability and the true valuing of ecosystem services by encouraging:

- ┆ ecological land use to maintain and enhance habitat quality and connectivity for all species;
- ┆ social systems that contribute to a culture of sufficiency which eases the consumption pressures on our natural capital;
- ┆ Reduction in usage of toxic chemicals and their resulting negative environmental impacts;
- ┆ Reduction in overall consumption, alongside re-using and recycling, to ensure we have sufficient resources to meet the needs of today and tomorrow.

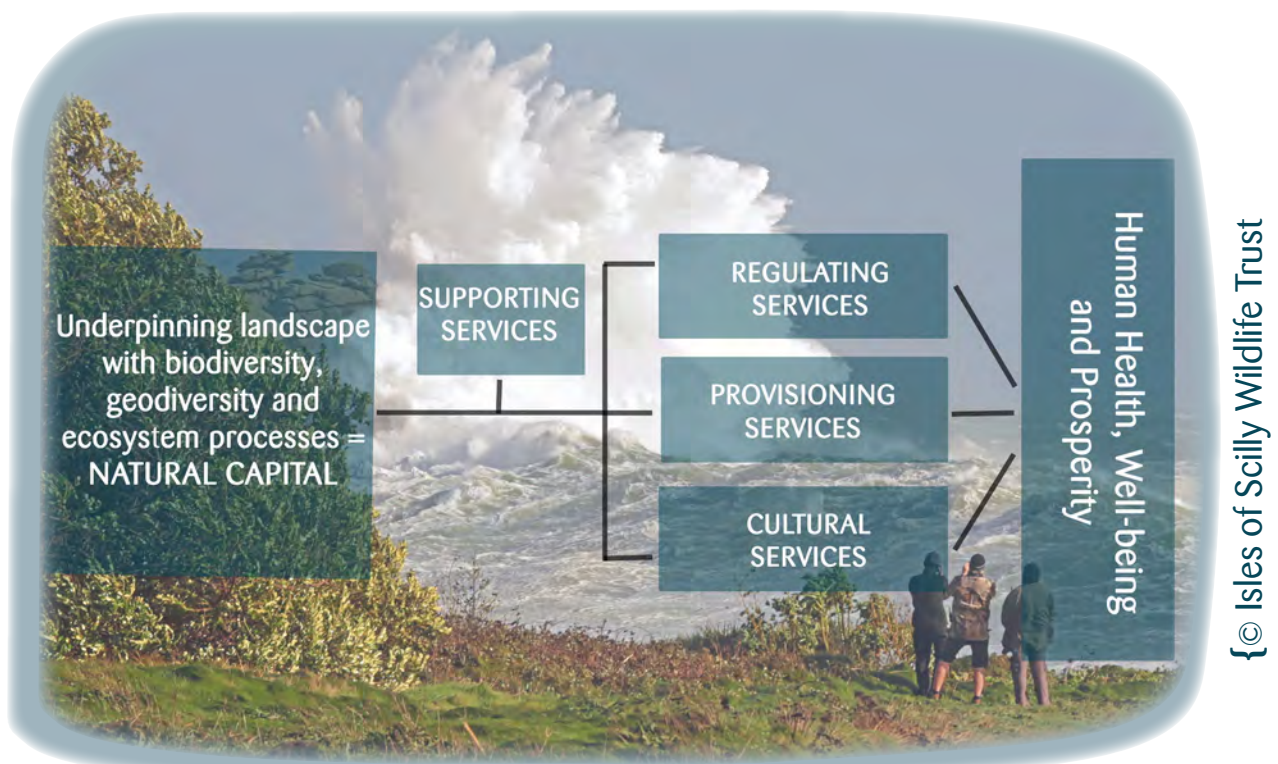


Figure 3 | The Relationship between Natural Capital, Ecosystem Services & Sustainability

## 6.5 | The Ecosystem Approach

At a national level applying the ecosystem approach was the foundation for the Natural Environment White Paper (2011) and Making Space for Nature (Lawton 2011), which both advocated an integrated approach to managing the natural environment by placing ‘the value of nature at the centre of the choices our nation must make; by properly valuing nature today, we can safeguard the natural areas that we all cherish and from which we derive vital services.’ The White Paper also stated that ‘sustainable economic growth relies on services provided by the natural environment.’ This commitment to deliver outcomes for biodiversity and ecosystems was seen later that year in Biodiversity 2020 for England (Defra 2011) which established the direction and approach to biodiversity policy over the next 10 years.

The ecosystem approach recognises that nature provides us with multiple benefits (such as food, clean water and opportunities to improve our health and well-being) and helps to encourage different groups of people to think about the value of nature and what effect their actions have (positive or negative) on these benefits in any decision-making process. The approach can help facilitate a connected way of managing the environment with actions that focus on long-term sustainability which enhance the benefits nature provides. These solutions can help with both local and global challenges such as improving health and the local economy as well as major challenges such as the impacts of climate change, food and water availability.

The approach is split into 5 stages:

- 1{ Define the partnership;
- 2{ Understand the place;
- 3{ Plan for change;
- 4{ Develop integrated delivery plans and
- 5{ Integrated delivery and monitoring.

Not every stage has to be implemented, but the approach provides a flexible framework that can be tailored to suit a particular situation, time and budget.

# { The Ecosystem Approach }

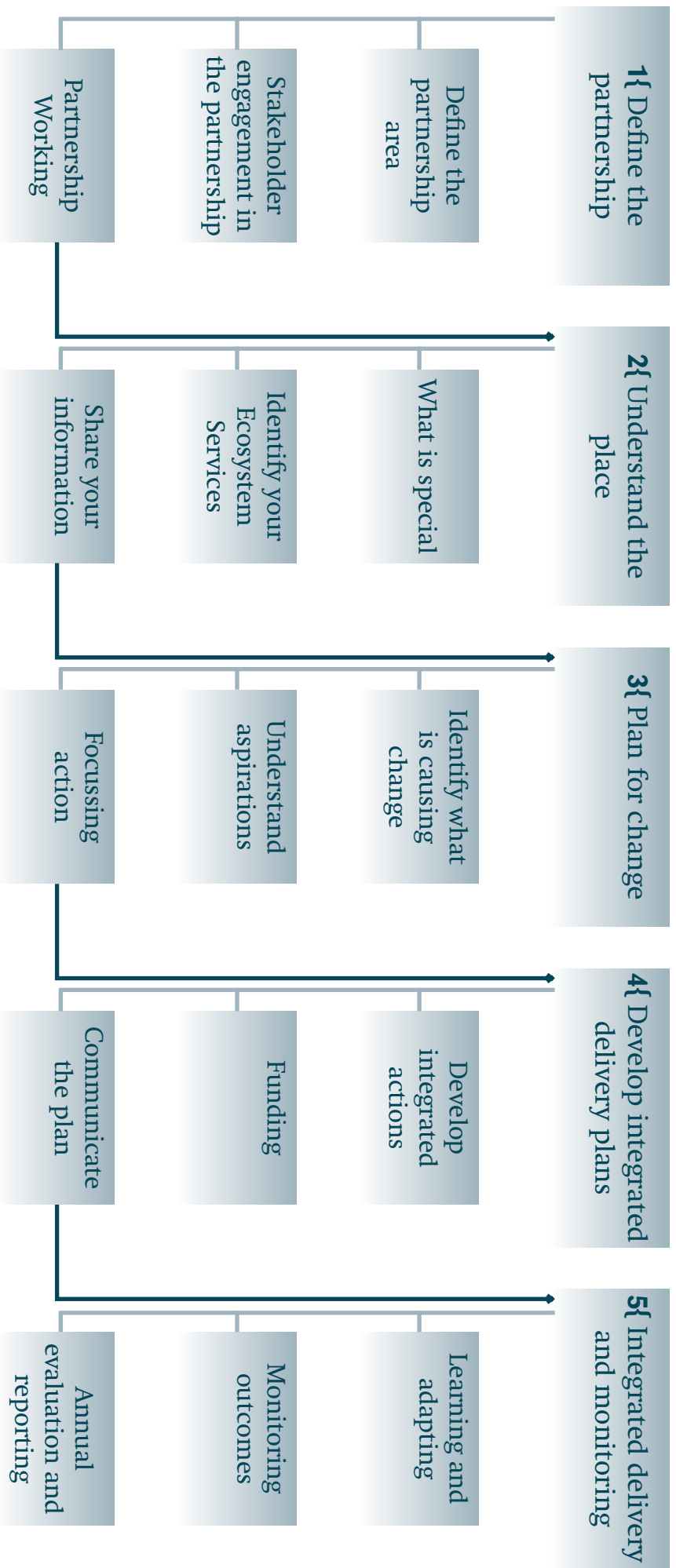


Figure 4 | The Ecosystem Approach

{ © Isles of Scilly Wildlife Trust

The example below (Figure 5) shows how following the ecosystem approach could result in integrated delivery to solve a current issue (a sustainable freshwater supply) for the Isles of Scilly AONB:

## Council of the Isles of Scilly

Retro-fit properties with greywater and rainwater harvesting systems  
Reduce use of pesticides on estate

Planning and development to incorporate green infrastructure

Developments appropriately assessed and situated so they do not affect key ecosystem services

Re-enforce message of sustainable water use

Work with key stakeholders and businesses in securing money for environmental growth

## Duchy of Cornwall

Retro-fit properties with greywater and rainwater harvesting systems

Support farm tenants to manage tenancy for the deliver of public goods

Work with key stakeholders and businesses in securing money for environmental growth

## Isles of Scilly Wildlife Trust

Creation of ponds across landholding to use as natural watering holes for livestock and biodiversity

Creation of ponds on wetland sites to increase water storage and flood storage capacity

Manage water levels on wetland sites to assist water storage and biodiversity

Manage remaining land to promote continuous cover to 'slow the flow' of water through catchments

Support farm tenants to manage land for the delivery of public goods

Work with key stakeholders on the delivery of nature-based-solutions

## Local Farmers

Transfer use of artificial fertilisers to waste water (from fertigation) to improve soil health and productivity

Use of IPM to reduce the reliance on pesticides

3 dimensional buffer strips alongside water courses within and outside of catchments

Tree planting to improve soil health and 'slow the flow of water'

No 'till' land management practices to reduce soil erosion and run-off

Creation of ponds to use as natural watering holes

## Environment Agency

Work on nature-based-solutions to protect critical wetlands from the effect of sea level rise and increased storm events

Monitor diffuse and deliberate pollution events and enforce using the polluter pays principle

Work with key stakeholders and businesses in securing money for environmental growth

## Islands Partnership

Promote islands as a responsible tourism destination

Responsible messaging on resources

Avoidance of 'over-tourism'

Work with key stakeholders and businesses in securing money for environmental growth

## Local Community and Businesses

Utilise water conservation measures at home or business

Regular pumping and maintenance of septic tanks

Only put rainwater down drains

Reduce use of garden chemicals

Ensure waste water pipes are connected to sewers

Avoid putting man-made things down toilets

Buy local, healthy food

Promote responsible messaging to guests and clients

Identification where water use in business is heavy and effect change

Promote work of others managing water for the islands

Work with key stakeholders in securing money for environmental growth

## South West Water

Sustainable abstraction rates across wetland sites

Alternative methods to increase water storage across islands

Utilisation of constructed wetlands to treat waste and create new habitats

Work with landowners and tenants on a catchment-based approach to water management

Re-enforce message of sustainable water use

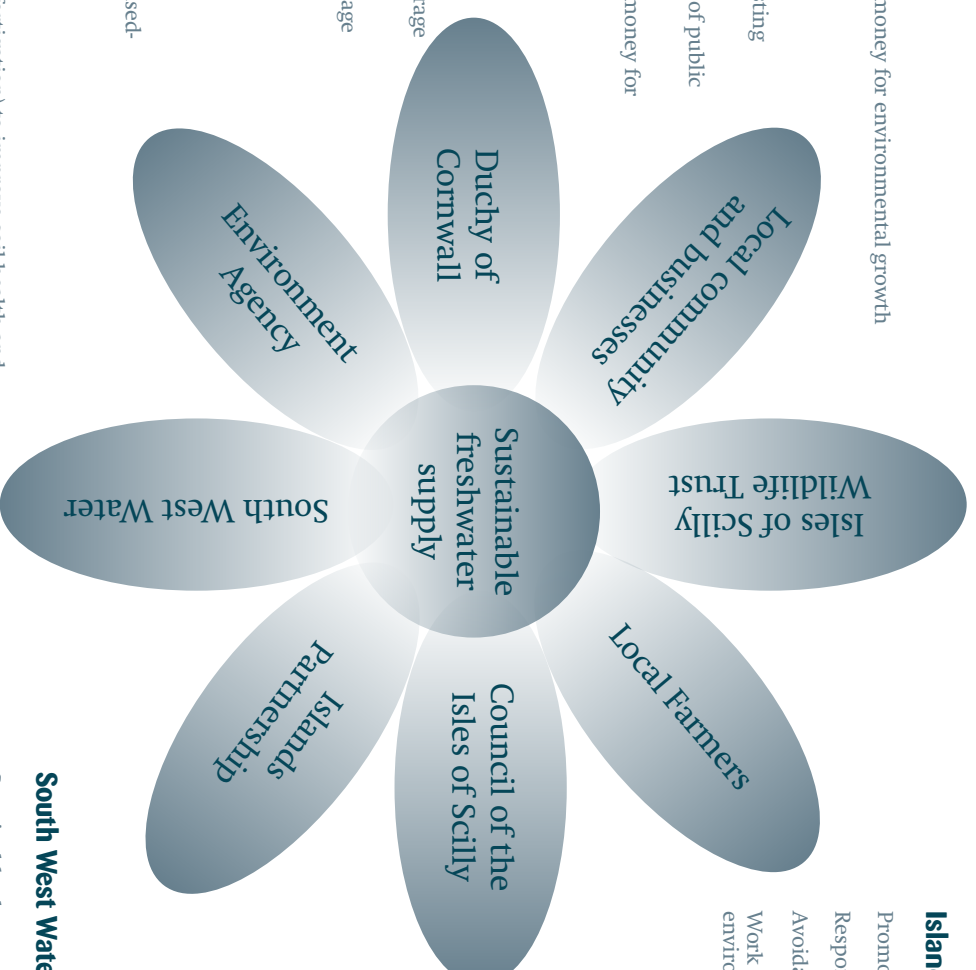


Figure 5 | Example of the Ecosystem Approach in practice

Some of the outcomes of the ecosystem approach project above provide multiple benefits beyond the sustainable provision of freshwater. These include regulating services of coastal protection, carbon sequestration, water storage, reduction in surface water run-off and improvements in water quality. Improving soil health (including 3-dimensional buffer strips along watercourses, pond creation for water and flood storage, tree-planting within the catchment and ongoing management of the wetlands) will help to secure improvements in biodiversity and could assist in creating ecological networks, whilst enhancing the visitor experience and consequently boost the tourism economy. Water conservation measures could see water bills lowered and reduced use of pesticides help to lower costs to the water and farming industries. Delivery of these multiple outcomes helps deliver against global sustainable development goals and local environmental growth targets.



{© BareFoot Photographer

# Chapter 7 | Policy Framework

## 7.1 | Introduction

This plan considers current policies, strategies and thinking, ranging from European and national scale to local development plans and site management plans. This chapter sets out the objectives and targets and focuses on 3 themes to meet the vision over the next 5 years.

To help direct this vision the following have been referenced:

- ┆ [Water Framework Directive \(EU 2000\)](#)
- ┆ [Making Space for Nature \(Lawton 2010\)](#)
- ┆ [Biodiversity 2020 \(Defra 2011\)](#)
- ┆ [Cornwall and Isles of Scilly Environmental Growth Strategy \(2015\)](#)
- ┆ [A Green Future: Our 25 Year Plan to Improve the Environment \(Defra 2018\)](#)
- ┆ [Health and Harmony: The future for food, farming and the environment in a Green Brexit \(Defra 2018\)](#)
- ┆ [Local Plan including minerals and waste 2015 to 2030 \(Council for the Isles of Scilly 2018\) - draft](#)
- ┆ [The Colchester Declaration \(NAAONB 2019\)](#)
- ┆ [The National Planning Policy Framework \(2019\)](#)
- ┆ [South West Marine Plan \(MMO currently in development\) \(2020\)](#)
- ┆ [The Landscapes Review \(2019\)](#)

The Policy Framework concentrates on three key topics. These are Understand, Value and Experience; Landscape and Land Management; and Planning, Partnerships and Community. Each section provides background information on the topic and its implication to the AONB designation in relation to the key threats and opportunities raised in Chapter 5.

## 7.2 | Understand, Value and Experience

The environment has been in serious decline over many centuries and the protection policies and the numerous designations in place within the Isles of Scilly AONB, have only slowed this decline. Accounting for the value that our terrestrial and marine environments bring and the multiple ecosystem services they provide, will ensure that the economy can grow and make the Isles of Scilly an enriched place to live, work and visit.

Tourism provides the main economic income on the islands, but in recent years despite the climb in global tourism, visitor numbers have declined. The 2018 Destination Management Plan (DMP) for the islands highlights that this downward trend should be halted by extending the season and recognising that a diversified economy will be necessary to assist with economic growth but accepting that tourism in the long-term will continue to be the main economic driver.

Scenic and natural beauty and peace and tranquillity are the islands main selling points, along with recreational opportunities such as diving and sea kayaking, local food, culture, and heritage, all providing the 'special sense of place' found in the remoteness of the location. The DMP recognises that a sensitive balance needs to be achieved to manage growth, conserve the islands' natural environment and special character, whilst supporting a sustainable community.

On the face of it, tourism is paying its way and underpins the island's economy. Visitors spend their money on local services and the community pays taxes and utility bills, but how are the hidden costs of tourism, such as provision and upgrading of infrastructure beyond the needs of the community, met in order to satisfy the demands of a seasonal tourism industry? Who pays to enhance the natural capital of the islands or to mitigate and adapt to the risks of climate change? These facilities are essential to ensure long-term sustainable economic growth and visitor satisfaction.

The DMP states that 'over-tourism' would diminish the visitor experience and risk environmental degradation at peak times. The plan suggests that one way to avoid this is to extend the season. However, if the impacts of season extension on the environment is not fully understood, the visitor experience could be at risk if natural resources are negatively impacted., for example, by not considering the long-term effects of climate change and weather patterns (hotter, drier summers and low levels of rainfall in autumn) which could affect a longer visitor season. The short-term effects on freshwater demand from cruise ships, for example during the summer months, and the needs of those additional daily visitors arriving on the islands, are not being accounted for currently. Without plentiful and reliable local natural resources (in this case, freshwater), the long-term sustainability of the tourism economy and the island community might not be possible.

It is imperative to first understand the environmental challenges faced by the islands along with the solutions, so that collectively the community of residents and visitors can make better, well-informed decisions about our environment. Understanding the effects of human impact on the environment will help to realise a deeper appreciation of what the environment provides and enable people to value it in their daily lives. Working collectively to achieve environmental growth will result in more people having a more frequent and positive experience from their environment in multiple ways.

# 1 | Understand, Value and Experience

## Policy

## Objectives

**A** { The value of the natural capital and the goods and services it provides to Scilly's economy is communicated and widely understood

**A1**{ Undertake public awareness campaigns and engagement in the importance of natural capital and climate change mitigation and adaption, which help people understand their impact and to make positive changes in their behaviour

**A2**{ Promote the need for and facilitate the collection of all forms of environmental data for Scilly

**A3**{ Carry out analysis and monitoring of the impacts of current and future environmental trends, risks, and opportunities on our natural capital.

**A4**{ Source, promote and facilitate mechanisms which reward individuals, communities, organisations, and businesses which help to deliver environmental growth

**A5**{ Advocate and contribute to the development of a Nature Recovery Plan for the Isles of Scilly.

**A6**{ Produce a State of Nature in Scilly report

**B** { High quality sustainable tourism is promoted and delivered

**B1**{ Support the development of a range of sustainable cultural visitor experiences to showcase the special qualities of the AONB

**B2**{ Set limits of acceptable change on activities which have a demonstrable negative impact on the special qualities of the AONB in collaboration with stakeholders and based on locally collected evidence

**B3**{ Contribute to the development and promotion of a Scilly Pledge to show commitment to sustainability from businesses and visitors

**B4**{ Recognising the need to raise funds for landscape and natures recovery, consult with a wide range of stakeholders on potential methods of fundraising which recognise the impact of tourism on the natural capital of the islands.

**C** { People living in and visiting Scilly are connected to nature

**C1**{ Develop and contribute to safe and inclusive access to landscapes in ways that preserve the integrity of conservation and historic sites and features.

**C2**{ Encourage and educate individual level action for nature including wildlife-friendly and organic gardening practices

**C3**{ Promote and undertake activities which actively engage people in the maintenance, conservation, and enhancement of the natural and historic landscape.

**C4**{ Support, create and undertake learning opportunities which enhance people's understanding of their local environment

**C5**{ Develop and support opportunities which create inclusive and remote access to the landscape



## 7.3 | Landscape & Land Management

The effects of climate change are the greatest pressure faced by our environment, with expected hotter and drier summers, warmer and wetter winters in conjunction with increasing storm events that will be compounded by sea level rise. These drivers will impact on infrastructure, the islands ecosystems, processes, and functioning and ultimately result in a change in the landscape. The focus of this plan should therefore be aimed at land management practices which will provide ongoing mitigation and adaptation measures to manage the impacts of climate change.

Land management continues to play a role in defining the landscape character of the AONB with small field patterns for flower and bulb farming. However, in recent decades biodiversity and ecosystem services have not always been accounted for in the agricultural decision-making process resulting in changes to growing techniques, a reduction in the number of flower/bulb varieties and mechanisation. These have led to the abandonment of some areas and the intensification of others. Both practices can have a detrimental effect on landscape character and could lead to the homogenisation of the landscape as practices become intensive and uniform to extract maximum productivity at the expense of natural capital.

The UK's exit from the Common Agricultural Policy (CAP) and the phasing-out of the Basic Payment Scheme (BPS) could lead to opportunities, particularly those that deliver payments for public goods such as regulating services which reduce soil erosion, increase pollination or promote natural coastal defences. For example:

- ┆ Reductions in the use of chemical fertilisers, diffuse pollution and the agricultural emissions of ammonia and nitrogen alongside the development of farm clusters in a catchment-based approach could help to improve water quality.
- ┆ The incorporation of regenerative land management techniques could increase soil organic content to improve soil health, aid carbon sequestration, regulate water flow and increase biodiversity.
- ┆ Payments for ecosystem services that help to improve our water environment or facilitate habitat management to benefit wildlife.

Some of these changes are already underway with some land previously used to grow flowers, now used for the rearing of livestock and the growing of vegetables and fruit.

Over 50% of Scilly is under the tenancy of the Isles of Scilly Wildlife Trust, a charity which has a remit of nature conservation activities and promotion of public access. Landscape-scale restoration is required across this area to realise its full potential with low impact grazing and habitat management to re-connect fragmented habitats and join up designated sites (SSSI's). Ecological processes to increase genetic diversity should be promoted and the risks from invasive non-native and pernicious native species should be reduced.

Restoring abandoned land and joining up fragmented habitat across the AONB can bring multiple benefits. Healthy soils can contribute to carbon sequestration and storage; permanent vegetative cover can slow the flow of water during rainfall events to ensure as much water is captured in our valuable wetlands, rather than taken straight out to sea; increased biodiversity such as flowering plants can provide a nectar source for pollinators which in turn is vital to locally grown crops and flowers; an increase in the number of people managing the land helps to diversify income and the effect of more people working the land to restore lost habitats and connect them to others, could further enhance a visitor's experience of Scilly. And as a bonus, these activities can help the islands adapt to the effects of climate change.

Though the AONB is a terrestrial designation, the impacts of climate change on the coastal and marine environment cannot be overlooked in this plan. Increased storm events could see continued change of the shoreline, erosion of archaeological features, increased flooding events and impact on natural vegetation such as local Elm copses and hedges. Rising sea levels could threaten freshwater supply through saline intrusion, contamination and flood inundation. However, the use of nature-based solutions for coastal defences such as sand dunes and seagrass beds, water conservation measures such as ponds for livestock, drought tolerant crops, and expanding wetland habitats to reduce pressure on natural groundwater supplies can all help to mitigate these predicted effects, manage adaptation and prevent potential collapse of the environment.

## 2 | Landscape and Land Management

### Policy

**D** Land is managed in a way that recovers and enhances natural capital & ecosystem services and protects ecological functioning & the historic environment

### Objectives

- D1**{ Work with stakeholders to create job opportunities which maintain and develop skills in sustainable land management, and which promote and sustain environmental growth;
- D2**{ Manage, protect, and enhance priority habitats and species increasing their resilience and adaptation to climate change;
- D3**{ Re-connect fragmented habitats to help create a resilient ecological network and restore ecological processes;
- D4**{ Promote, encourage and showcase sustainable land management practices;
- D5**{ Support initiatives which ensure that farms can deliver public goods and enhance biodiversity whilst producing high quality products and remain profitable;
- D6**{ Showcase the use of regenerative methods of agriculture, horticulture and land management to promote protection and enhancement of soil health and carbon sequestration in soils;
- D7**{ Support initiatives which monitor and evaluate the effects of invasive species on natural ecosystems and where control or eradication is undertaken where practicable and/or ethical;
- D8**{ Encourage the production of more locally grown food;
- D9**{ Support and encourage initiatives and practices which conserve and enhance the historic environment;
- D10**{ Support the use of heritage impact assessments and address heritage at risk.

**E** Sustainable management of freshwater is carried out and supplies are protected

- E1**{ Ensure improvement to water level management structures and approaches across wetland sites which assist in maintaining or enhancing biodiversity, water storage, water quality and flood alleviation/mitigation
- E2**{ Support through a variety of mechanisms the installation of rainwater harvesting & greywater systems to assist domestic, industrial, and agricultural users to help with water conservation
- E3**{ Support, promote and undertake catchment sensitive land management practices which minimise the risk of diffuse pollution entering our watercourses and marine environment

## 7.4 | Planning, Partnerships and Community

The demand for development to support the economy can conflict with conserving and enhancing landscape quality within functioning ecosystems, particularly in the smallest AONB, but planning for development must consider nature in decision-making processes, ensuring the ‘net gain’ principle and the establishment of ecological networks are met. Accepting that ‘land for nature’ is not separate from all other land across the islands is paramount; there are no boundaries in terms of ecosystem provision and functioning. Designing nature into new developments to assist with ecosystem service provision which help communities re-connect with nature and the services it provides is vital to a greater sense of well-being.

The Landscape Review (Glover report 2019) acknowledged that protected landscape designations have not been enough to halt the decline in the quality of our landscapes and their associated biodiversity. The Isles of Scilly AONB is no exception. The boom in tourism from the 1970’s with better freight and imported food altered the islands economy. The associated decline in subsistence living (which at the time promoted nature-rich landscapes) led to the abandonment of marginal land, the intensification of flower farming to meet increased demand of this niche product and natural resource use not seen before. And so, a gradual decline in the quality of the landscapes in Scilly began. Non-native species such as pittosporum used for hedging and invasive bracken no longer harvested for cattle bedding, began encroaching nature-rich headlands. Water abstraction to meet demand from visitors depleted groundwater sources and intensified flower farming stripped soils of nutrients. A slow but significant decline has led to depleted natural capital and a loss of biological diversity within a landscape that has become increasingly degraded.

As tourism grew and a community of loyal, repeat visitors developed along with their love of the sense of place Scilly offered, the decline in the quality of the landscapes was not recognised fully by visitors and residents. Over the years and right up to the present day, it appears that the views of many of the long-term visitors to Scilly differ markedly with the reality of the biological condition of the landscapes. Therefore, there is very little recognition of the degradation and decline in landscape quality, with the disconnect between nature and society further exacerbating this view. Visiting Scilly gives people a sense of place, peace, tranquillity, and freedom not found on the mainland, largely because they are able to walk freely through landscapes enjoying these experiences. This can give a false perception of the biological state of our landscapes and a reluctance amongst decision-makers and those selling Scilly as a holiday destination to acknowledge the need for improvement and therefore investment in our natural capital for fear of putting off visitors.

It is not possible to segregate economic growth from biodiversity, landscape and cultural heritage if we are to address the ecological and climate emergencies. They are all underpinned by natural processes and adaptive land management and it is only by working together, across these topics, that sustainable economic development, nature recovery and climate action will be achieved.

### 3 | Planning, Partnerships and Community

#### Policy

#### Objectives

**F** { Good planning, sustainable development and destination management conserves and enhances the AONB

- F1**{ Support and promote decision-making which uses the best available, up to date environmental information;
- F2**{ Support development activities which prioritise environmental growth and make a positive contribution to climate change targets;
- F3**{ Support the principle that all new developments must incorporate net gain and ecosystem service protection;
- F4**{ Promote a circular, low carbon economy which delivers public goods and reduces pressure on natural resources, whilst delivering environmental growth;
- F5**{ Promote local food and healthy eating programmes where food waste is reduced, and industrial composting is implemented.
- F6**{ Support improvements to waste-water treatment, water storage, pesticide usage reduction, and both marine and terrestrial renewable energy generation;
- F7**{ Support and promote development activities which conserve and enhance cultural heritage, including heritage assets, their settings and the wider historic landscape, townscape and seascape.

**G** { Collaborative working is improved and prioritised

- G1**{ Create effective partnerships of stakeholders including tenant farmers, statutory agencies and businesses to ensure a nature-rich, climate-friendly Isles of Scilly AONB;
- G2**{ Set collective targets to reduce all forms of pollution to soils, water, and air and damage to ecosystems from invasive species through engagement at all levels;
- G3**{ Support decision making which puts nature and climate resilience at its heart.

**H** { Everyone in Scilly can be engaged in decisions which effect the natural

- H1**{ Provide opportunities for people to support protection and enhancement of areas within the AONB which matter to them;
- H2**{ Community views on the impacts of climate change are gathered by decision makers to develop solutions which enable the islands to become resilient and adapt to climate change.

## 7.5 | Monitoring the Progress of this Plan

Below are a set of indicators which monitor the progress of the plan. They are subject to funding and the presence of new legislation (the Environment Bill) which is, at time of writing (March 2021), not yet in place.

Performance Indicators	Policy/Policies it will help to meet	Timeframe	By whom
1{ Existing species and spatial metadata are collated, and any gaps are identified.	A, F	By end of 2023	IoSWT, CIoS
2{ A Monitoring and Surveillance Framework is created, and baselines are set	A, D, F	By end of 2024	IoSWT, CIoS
3{ A Natural Capital assessment (NCA) is carried out across the Isles of Scilly.	A, D, F	By end of 2024	Doc, IoSWT, TreSCO
4{ Identify the natural capital and ecosystem services provision people most value and use; collate and publish the results.	A, D, F, H	By end of 2022	IoSWT, CIoS, IP
5{ The distribution and intensity of recreational activities and their potential impact on SPA/SAC features are mapped.	A, B, C, F	2021-2023	IFCA, CIoS
6{ 2 Farm clusters are created to help inform local ELM trials and their activity to deliver public goods is monitored.	E, G	By end of 2023	Doc, CIoS
7{ 4 Schedule 41 Species Action Plans are written.	D	By end of 2025	CIoS
8{ The Adaptive Scillies Project is delivered	D, E	By end of 2023	CIoS
9{ 75% of planned nature recovery actions on designated sites are completed annually.	D, E	2021-2025	All land managers
10{ 5 Scheduled Monuments are under active management to remove them from the Heritage at Risk Register.	D	By end of 2025	IoSWT
11{ 1 public awareness campaign highlighting the value of nature is run per year.	A, B, C	2021-2025	IoSWT, IP

Performance Indicators	Policy/Policies it will help to meet	Timeframe	By whom
<b>12{</b> A Scilly Pledge is launched and 50% of visitors sign up each year.	B, C	2022-2025	IP
<b>13{</b> 1 project using the Ecosystem Approach is delivered	A, C, D, E, F	By end of 2025	All
<b>14{</b> An Access and Repair Plan for landscapes across the islands is produced.	C	By end of 2022	IoSWT
<b>15{</b> A Countryside Apprenticeship Scheme is running, taking up to 4 per year.	C, D, H	By end of 2023	IoSWT
<b>16{</b> A new voluntary group is created to actively engage people in the recovery of nature.	C, D, H	By end of 2023	IoSWT
<b>17{</b> Members of the AONB Partnership report annually on their progress to net zero.	F	2021-2025	All
<b>18{</b> A food waste composting scheme is operational	F	By end of 2025	CIOs
<b>19{</b> A sustainable method of raising funds for nature's recovery is operational.	B	By end of 2023	CIOs, IoSWT, IP
<b>20{</b> A Nature Recovery Plan is produced	A	By end of 2025	CIOs

# AONB Management Plan | Glossary of Terms



**Biodiversity** – the variety of life in all its forms, and at all levels, including genes, species and ecosystems (Convention on Biological Diversity)



**Climate Change** – the change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods (UNFCCC, 1994)



**Colchester Declaration** – a joint pledge made by all Areas of Outstanding Natural Beauty partnerships to redress the declines in species and habitats within the context of a wider response to climate change.



**Conservation** – an action taken to promote the persistence of ecosystems and biodiversity (Adapted from Levin, 2009)



**Conservation of heritage** – the process of maintaining and managing change to a heritage asset in a way that sustains and where appropriate enhances its significance.



**Cultural heritage** – inherited assets which people identify and value as a reflection and expression of their evolving knowledge, beliefs and traditions.



**Cultural Services** – all the non-material, and normally non-rival and non-consumptive, outputs of ecosystems that affect physical and mental states of people (CICES, 2018)



**Ecological Network** – the basic, joined up infrastructure of existing and future habitat needed to allow populations of species and habitats to survive in fluctuating



**Ecosystem** – a natural unit consisting of all the plants, animals, and microorganisms in a given area, interacting with all of the non-living physical and chemical factors of this environment (Levin, 2009)



**Ecosystem Approach** – an integrated approach to managing the natural environment which places the value of nature at the centre of the choices we make safeguarding the natural areas that we all cherish and from which we derive vital services (Lawton, 2011)



**Environmental Growth** – the net gain of our natural systems, which is important because protection is not enough.





**Ecosystem Function** – the flow of energy and materials through the biotic and abiotic components of an ecosystem. It includes many processes such as biomass production, trophic transfer through plants and animals, nutrient cycling, water dynamics and heat transfer. Ecosystem functions and processes underpin the production of ecosystem services (adapted from IPBES, 2019b).



**Ecosystem services** – the contributions that ecosystems make to human well-being. The Review classifies these into provisioning services, regulating and maintenance services, and cultural services (MA, 2005a; Haines-Young and Potschin, 2018).



**Externality** – a positive or negative consequence (benefits or costs) of an action that affects someone other than the agent undertaking that action and for which the agent is neither directly compensated nor penalised.



**Functional diversity** – the variety and number of species that fulfil different functional roles in a community or ecosystem (Levin, 2009).



**Heritage Asset** – a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because



**Institutional failure** – these include (i) law and policy failures (e.g. perverse subsidies), (ii) market failures (arising from externalities), (iii) organisational failures (e.g. lack of transparency and political legitimacy in decision making) and (iv) informal institutional failures (e.g. breakdown of social norms due to erosion of trust).



**Natural assets** – naturally occurring living and non-living entities that together comprise ecosystems and deliver ecosystem services that benefit current and future generations.



**Natural capital** – the stock of renewable and non-renewable natural assets (e.g. ecosystems) that yield a flow of benefits to people (i.e. ecosystem services). The term ‘natural capital’ is used to emphasise it is a capital asset, like produced capital (roads and buildings) and human capital (knowledge and skills).



**Natural resources** – resources which are naturally occurring, including renewable resources such as forests and non-renewable resources such as minerals.



**Nature** – the natural world.



**Nature Recovery Network** – a national network of wildlife-rich places to increase and restore nature, to expand, improve, and connect these places across towns, cities, and countryside (DEFRA, 2020)



**Nature Recovery Strategy/Plan** – a means of setting out how to create a nature recovery network which maps the most valuable areas for wildlife, sets out opportunities to improve nature future and agrees local priorities for increasing biodiversity.



**Planetary boundaries** – Earth system processes critical for maintaining the stable state of the Holocene, such as biosphere integrity, land-use change and climate change. Although not all these processes have definable single thresholds, crossing the boundaries increases the risk of large-scale, potentially irreversible, environmental changes (Rockström et al. 2009; Steffen et al. 2015).



**Primary producer** – an organism capable of converting atmospheric carbon dioxide into organic matter (Levin, 2009).



**Protected Area** – a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of Nature and associated ecosystem services and cultural values (IUCN definition, 2008b).



**Provisioning services** – the vast range of goods we obtain from ecosystems e.g. food, freshwater, fuel, fibre, medicines, genetic resources and ornamental resources.



**Public goods** – goods or services that are neither rivalrous (access to a public good by any one group of people has no effect on the quantity available to others) nor excludable (no one can be excluded from access to the good).



**Regulating and maintenance services** – all ways in which ecosystems control or modify biotic or abiotic parameters that define the environment of people. These are ecosystem outputs that are not consumed but affect the performance of people and their activities (CICES, 2018).



**Resilience** – the magnitude of disturbance that an ecosystem or society can undergo without crossing a threshold to a situation with different structure or outputs i.e. a different state. Resilience depends on factors such as ecological dynamics as well as the organisational and institutional capacity to understand, manage, and respond to these dynamics (IPBES, 2019b).



**Restoration** – any intentional activities that initiate or accelerate the recovery of an ecosystem from a degraded state (IPBES, 2019b).



**Risk** – this is the probability that an outcome (or investment's actual gains) will differ from an expected outcome (or return).



**Species** – a fundamental category for the classification and description of organisms, defined in various ways but typically on the basis of reproductive capacity; i.e. the members of a species can reproduce with each other to produce fertile offspring but cannot do so with individuals outside the species (Levin, 2009).



**Sustainable** – a situation is sustainable if it can persist indefinitely. An unsustainable state of affairs cannot persist indefinitely (Review condition).



**Sustainable development** – development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland report) i.e. by bequeathing to its successor at least as large a productive base as it had inherited from its predecessor (Dasgupta, 2021).



**Sustainable Development Goals** – a set of goals adopted by the United Nations in 2015 to end poverty, protect the planet, and ensure prosperity for all, as part of the 2030 Agenda for Sustainable Development.



# Image Credits | By Section

## Cover Image |

Isles of Scilly Wildlife Trust Ranger carrying out Reedbed Management  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust



## Ministerial Forward |

Lord Gardiner of Kimble  
{ Picture provided by Defra



## Welcome from the Chairman |

Luke Humphries  
{ Picture taken from islandpartnership.co.uk



## Chapter 1 | Introduction

Areas of Outstanding Natural Beauty | A designation for the 21st Century  
{ Infographic provided by NAAONB | landscapesforlife.org.uk

Isles of Scilly from Space  
{ © Dr David P Moore

Bishop Rock Lighthouse | “The Bays”, St Martin’s | Holy Vale Nature Trail, St Mary’s  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust



## Chapter 2 | Key Approaches in this Management Plan

Figure 1 | The Ecosystem Approach  
**Adapted from** {ecosystemsknowledge.net | © Isles of Scilly Wildlife Trust



## Chapter 3 | This Management Plan

Aerial of Tean, St Martin’s & the Eastern Isles  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust



## Chapter 4 | Statement of Significance

Heather on Chapel Down, St Martin’s  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust

Otillo Swim-Run competitors passing Pelistry, St Mary’s  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust



## Chapter 5 | Key Threats and Opportunities

Common Darter, Rosehill Nature Garden, St Mary's  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust

Gilt edged Lichen (*Pseudocyphellaria aurata*), Isles of Scilly  
{ © Darren Mason | Isles of Scilly Wildlife Trust

Picking Narcissi, St Mary's  
{ © Darren Mason | Isles of Scilly Wildlife Trust

Dwarf pansy (*Viola kitaibeliana*), Rushy Bay, Bryher  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust

Pelistry Beach After a Winter Storm, St Mary's  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust

Works Carn, Prehistoric Entrance Grave Following Clearance, Bryher  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust



## Chapter 6 | Natural Capital, Ecosystem Services and the Ecosystem Approach

Figure 2 | Local Examples of Ecosystem Services  
{ © Isles of Scilly Wildlife Trust

Figure 3 | The Relationship between Natural Capital, Ecosystem Services  
& Sustainability  
{ © Isles of Scilly Wildlife Trust

Figure 4 | The Ecosystem Approach  
{ © Isles of Scilly Wildlife Trust

Figure 5 | Example of the Ecosystem Approach in practice  
{ © Isles of Scilly Wildlife Trust

Lower Moors SSSI, St Mary's | Porth Hellick Pool, St Mary's | Higher Moors SSSI,  
St Mary's  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust



## Back Cover Image |

Stars through the Reedbed, Porth Hellick Pool, St Mary's  
{ © BareFoot Photographer | Isles of Scilly Wildlife Trust



